Arrhythmia Detection and Classification using Morphologicaland Dynamic Features of ECG Signals

“ [10.1109@IEMBS.2010.5627645](mailto:10.1109@IEMBS.2010.5627645) ”

1. **Preprocessing: Filtering & Segmentation**
2. **Feature Extraction**

we propose to use wavelet transform for extracting features

1. **Classification & Classifier**

support vector machine (SVM) with a Gaussian radial basis function (RBF) kernel was chosen as the classification tool.

1. **Accuracy**

99.66% on 85945 heartbeats, better than any other published results.

1. **Two Leads or One Lead ? In case of two leads .. how classification of two leads is merged to have final decision ?**

( the upper lead and the lower lead) .

There are two different approaches to fuse the results from two leads.

The first is to reject the heartbeats for which the two leads give different classification results

Another possibility is to use the LIBSVM package for estimating the probability of each class producing the given observation for those up.

1. **Classes**

*15 classes*

